

PWISTA Physics:
DC Circuits
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This is a 15-hour* college physics course focused exclusively on DC circuits. It is meant as a stand-alone unit that, in a full semester college physics course, might be covered in two or three weeks.

**Not 15 credit-hours... 15 literal hours spent studying circuits. Read on for expectations.*

I'm anticipating that most participants will be teachers working toward any or all of these goals:

- (1) Establishing or refining their understanding of circuits (no prior knowledge is required)
- (2) Discussing practical teaching ideas regarding circuits at the conceptual, Regents, or college level
- (3) Fulfilling certification requirements with physics-specific professional development hours/credits

The class meets online via google hangouts. Participants must attend four of the five sessions for credit. (If you can only get to three, please talk to me, and I might be able to arrange a make-up.)

In the first half of each session, I'll prioritize discussion of practical (not theoretical or idealistic) pedagogy, including:

- Live sample demonstrations and laboratory activities
- Scope and sequence recommendations and discussions
- Answering participant questions about teaching methods or conundrums

In the second half of each session, I'll prioritize discussion of content, including:

- Modeling the solution process for specific practice problems
- Guidance on subtopics where there is confusion
- Answering participant questions about content, problem solving, and test preparation

I'll make every effort to meet the needs of all participants, including adjusting these priorities and following up by email after live sessions, as needed.

Course completion requirements:

- (1) Attendance at four of the five online sessions
- (2) Completion of five mini-assignments, which each include a choice of
 - a. Creating a written solution to a free-response problem from an old AP Physics exam, or
 - b. Creating written solutions to four multiple choice questions from old AP exams, or
 - c. Setting up and performing a laboratory exercise that can be used for teaching at any level
- (3) Passing a 45-minute test consisting of five short open-response questions and twenty multiple choice questions